

**COMMONWEALTH OF VIRGINIA  
Department of Environmental Quality  
Tidewater Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS**

International Paper Wood Products Division-Franklin Lumber Mill  
Franklin, Virginia  
Permit No. TRO-61448

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, International Paper Wood Products Division-Franklin Lumber Mill has applied for a Title V Operating Permit for its Franklin, Virginia facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: \_\_\_\_\_

Date:

Air Permit Manager: \_\_\_\_\_

Date:

Regional Director: \_\_\_\_\_

Date

## **FACILITY INFORMATION**

Permittee International Paper Wood Products Division - Franklin Lumber Mill

Facility International Paper Wood Products Division - Franklin Lumber Mill  
476 Carrsville Road  
Franklin, Virginia 23851-0178

AFS ID No. 51-093-00057

## **SOURCE DESCRIPTION**

The Franklin Lumber Mill consists of one saw mill (debarking and trimming), one planer mill, and three (3) drying kilns through which 125 million board feet (1 board foot = 12" × 12" × 1") per year can be processed. Tree length logs are received at the mill as raw material. They are fed into the process where they are cut to shorter lengths, debarked, and trimmed into dimensional lumber. The green lumber is loaded into one of three (3) drying kilns, where steam is injected to maintain the kilns at 200° to 250° F for 17 to 22 hours. Steam is purchased from an outside source, International's paper mill next door. The kilns are vented to the atmosphere through roof vents. When the lumber reaches the desired moisture content, it is removed from the kiln and taken to the planer mill, where it is planed, graded, stacked and banded. The lumber is then stored in storage sheds prior to being shipped to the customer.

The facility is a Title V major source of VOC. Two of the three kilns (LDK-1 and LDK-2) were constructed prior to March 17, 1972 and were therefore existing equipment, not subject to new source permitting. Kilns LDK-1 and LDK-2 were replaced in May 1982, and LDK-3 was constructed in September 1989. All three kilns were, at the time they were installed (or replaced), deemed exempt from new source permitting. A NSR permit (not PSD) was issued on 2/27/89 for a planing mill, consisting of 1 planer, 1 trim saw, 1 waste wood hog and 1 baghouse. A ban saw (also exempt from NSR) was added in 1996.

## **COMPLIANCE STATUS**

A full Compliance Evaluation of this facility, including a site visit, is conducted every year. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

## EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following :

Emission Unit / ID No.	Air Pollution Control Equip.	Capacity	Applicable Permit
Newman-Whitney 990 Planer / URN 4L	Pneumafil Air Filter 13.5-448-12	60 MBF/hour	Feb. 27, 1989 NSR
Irvington-Moore Trim Saw / URN 5L	Pneumafil Air Filter 13.5-448-12	60 MBF/hour	Feb. 27, 1989 NSR
Stedman B24x36 Wood Hog / URN 6L	Pneumafil Air Filter 13.5-448-12	60 MBF/hour	Feb. 27, 1989 NSR
Irvington-Moore Kiln / 1-LDK	None	163 MBF/charge (17-22 hrs)	None - installed 1971
Irvington-Moore Kiln / 2-LDK	None	163 MBF/charge (17-22 hrs)	None - installed 1971
Wellons Kiln / 3-LDK	None	126 MBF/charge (17-22 hrs)	None - exempt 1989

## EMISSIONS INVENTORY

A copy of the annual emission update summary is attached. Emissions are summarized in the following tables.

1. The actual annual emissions of criteria pollutants, as supplied in 5/1/98 Title V application

### 1998 Actual Emissions

Emission Unit	Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO <sub>2</sub>	PM <sub>10</sub>	NO <sub>x</sub>
LDK-1 LDK-2	112.0			2.0	
LDK-3	37.0			0.7	
Planing Mill (incl. Planer Saws and wood hog)	0.0			1.6	
<b>Total</b>	<b>149.0</b>			<b>4.3</b>	

2. The actual annual emissions of hazardous air pollutants, as supplied in the 5/1/98 Title V application.

1997 - 1998 Facility-wide Hazardous Air Pollutant Emissions

Pollutant	1997 - 1998 Hazardous Air Pollutant Emission in Tons/Yr
Formaldehyde	0.33
Methanol	1.94

**EMISSION UNIT APPLICABLE REQUIREMENTS - Woodworking Operations -**

**Planing Mill**

The woodworking operations associated with this section of the permit consist of the following emission units: Planer (L4), Trim Saw (L5) and Wood Hog (L6).

**Limitations**

The following title V permit conditions are derived from the NSR permit issued February 27, 1989:

Section III.A.1-4, III.B.3 & 4 and III.C.1.

The following Virginia Administrative Codes have specific requirements that have been determined to be applicable:

- 9 VAC 5-50-80 - New and Modified Source Standard for Visible Emissions
- 9 VAC 5-50-20 - New and Modified Source Compliance Requirements
- 9 VAC 5-50-260 - New and Modified Source Standard for Stationary Sources (BACT)
- 9 VAC 5-40-2270 - Existing Source Standard for Particulate Matter for Woodworking Operations

**Monitoring**

The monitoring and recordkeeping requirements in conditions 9 and 10 of the NSR permit have been modified to meet Part 70 requirements. The permittee is required to perform periodic visual evaluations to determine compliance with the opacity standard.

The following demonstration is provided to show that there is not a great likelihood that the emission limits found in section IV.A of the title V permit will be exceeded:

Calculations provided for 2/27/89 NSR permit limitations:

Given:

- Planer 64.75 tons/hr cap., 172,680 tons/yr annual production<sup>1</sup>, 375.3 lbs/ton Emission Factor (uncontrolled), 99.96% efficient baghouse and 20% growth factor (**207,216 tons/yr** adjusted prod., or **188,302 MBF/yr** (using 1.1 MBF/ton<sup>2</sup>, where MBF = thousand board feet, and 1 BF = 12" × 12" × 1")
- 1 172,680 tons/year divided by 64.75 tons/hour = 2666.9 hours of operation/year, which, as presented in 1989 application, is only representative of one shift operations. There is no limitation of hours of operations as long as the permit limits for tons/MBF per hour and ton/MBF per year are complied with.
  - 2 2200 lbs (1.1 Ton) per MBF is based on actual lumber weights from shipped finished dry Southern Yellow Pine lumber at Franklin Lumber Mill.
- Trim Saw 64.75 tons/hr cap., 140,280 tons/yr annual production, 115.8 lbs/ton Emission Factor (uncontrolled) , 99.96% efficient baghouse and 20% growth factor (**168,336 tons/yr** adjusted prod., or **153,033 MBF/yr** (using 1.1 MBF/ton, where MBF = thousand board feet, and 1 BF = 12" × 12" × 1")
- Waste Hog 0.51 tons/hr cap., 8760 hrs/yr, 99.96% efficient baghouse and 20% growth factor (**4,468 tons/yr**, or **4062 MBF/yr** (using 1.1 MBF/ton, where MBF = thousand board feet, and 1 BF = 12" × 12" × 1")

Then:

Planer  $64.75 \text{ tons/hr} \times 375.3 \text{ lbs PM/ton} = 24300.1 \text{ lbs/hr} \times 0.0004 = 9.72 \text{ lbs/hr} \times 1.2 =$

$\frac{11.6 \text{ lbs/hr}}{[(172,680 \text{ tons/yr} \times 375.3 \text{ lbs/ton} \times 1.2) / 2000 \text{ lbs/ton}] \times 0.0004 = \underline{15.6}}$

tons/yr

Trim Saw  $64.75 \text{ tons/hr} \times 115.8 \text{ lbs PM/ton} = 7498.1 \text{ lbs/hr} \times 0.0004 = 3.0 \text{ lbs/hr} \times 1.2 =$

$\frac{3.6 \text{ lbs/hr}}{[(140,280 \text{ tons/yr} \times 115.8 \text{ lbs/ton} \times 1.2 \text{ growth factor}) / 2000 \text{ lbs/ton}] \times 0.0004 =$

$\frac{3.9 \text{ tons/yr}}{}$

Waste Hog  $(0.51 \text{ ton/hr} \times 2000 \text{ lbs PM/ton}) = 1,020 \text{ lbs/hr} \times 0.0004 = 0.4 \text{ lb/hr} \times 1.2 =$

$\frac{0.5 \text{ lbs/hr}}{(1,020 \text{ lbs/hr} \times 8760 \text{ hrs/yr}) \times 0.0004 =$

$\underline{1.8 \text{ tons/yr}}$

**TOTALS:**  $\underline{1.8 \text{ tons/yr}}$       **0.05 grain/scf** (existing source Rule 4-17)      **15.7 lbs/hr**      **21.3 tons/yr**

**Recordkeeping and Reporting**

The permittee is required to keep records of visual evaluations, visible emissions evaluations, and any corrective action for visible emissions.

### **Testing**

The permit requires construction of the facility in such a manner so as to allow for emissions testing at any time using appropriate methods.

The permit does not require source tests. A table of test methods has been included in the permit if testing to determine compliance is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

### **Streamlined Requirements**

There are no streamlined requirements for this section of the title V permit.

### **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include a requirement for submitting an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

### **INAPPLICABLE REQUIREMENTS**

40 CFR Part 60, Subpart S. Maximum Achievable Control Technology (MACT) standards for pulp and paper in 40 CFR 60, Subpart S, and 9 VAC 5 Chapter 60, are not applicable. This plant was formerly a part of the Union Camp Pulp and Paper Mill, however, in April 1989, the paper mill was acquired by International Paper, and the lumber mill became a separate entity. Although the paper mill does provide services (i.e. steam) integral to the lumber mill, the lumber mill is not dependent upon the paper mill except by convenience, therefore the facilities are not under common control and therefore not subject to the pulp and paper MACT.

40 CFR Part 63, Subpart JJ. MACT standards for wood furniture manufacturing in 40 CFR Part 63, Subpart JJ and 9 VAC 5 Chapter 60 are not applicable. This facility cuts and dries lumber that may be used in furniture manufacturing at a later date by its customers.

**INSIGNIFICANT EMISSION UNITS**

The insignificant emission units listed below are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
IS7	Wood Chipper and Wood Chip Loading	9 VAC 5-80-720B	PM/PM <sub>10</sub>	45,000 tons/yr
IS8	Lumber Mill Saw	9 VAC 5-80-720B	PM/PM <sub>10</sub>	60.0 MBF/hr
IS8	Ban Saw	9 VAC 5-80-720B	PM/PM <sub>10</sub>	1.7 MBF/hr
IS9	Lumber debarking	9 VAC 5-80-720B	PM/PM <sub>10</sub>	600,000 tons/yr
IS11	Unpaved Road Traffic	9 VAC 5-80-720B	PM/PM <sub>10</sub>	Unknown

### CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

### PUBLIC PARTICIPATION

The proposed permit will be placed on public notice in the       [newspaper]       from       [date]       to       [date]